Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	WC Docket No. 05-68
Regulation of Prepaid Calling Card Services	)	
	)	

Comments of VeriSign, Inc.

Anthony M. Rutkowski
Vice President for Regulatory Affairs
VeriSign Communications Services Div.
21355 Ridgetop Circle
Dulles VA 20166-6503
tel: +1 703.948.4305
mailto:trutkowski@verisign.com

Tom Gage
Sr Vice President for Communications
VeriSign Communications Services Div.
21355 Ridgetop Circle
Dulles VA 20166-6503
tel: +1 703.948.4449
mailto:tgage@verisign.com

David Meredith
Vice President, Billing Services
VeriSign Communications Services Div.
222 W Oglethorpe Ave
Savannah GA 31401
tel: +1 912-527-4040
mailto:DMeredith@verisign.com

Brian Cute
Director, Government Relations
1666 K Street, N.W., Suite 410
Washington DC 20006-1227
tel: +1 202.973.6615
mailto:bcute@verisign.com

Filed: 15 April 2005

EXECUTIVE SUMMARY

This proceeding significantly affects the evolution and future deployment of intelligent transaction processing architectures and services for Next Generation Networks. As a major global innovator and supplier of these services, VeriSign encourages the Commission in this proceeding to adopt a minimal regulatory approach that allows for the evolution and effective use of these technologies and the associated product offerings. Such a minimal approach would separate transaction processing services from the associated products and services - applying Federal preemption to transaction processing services, and treating all the associated offerings as information services to the extent compatible with Commission regulatory policy.

In a Next Generation Network environment, teasing out legacy public telecommunication services like telephony for special regulatory treatment will be increasingly difficult. It is not unreasonable to allow "pure" VoIP based telephony to be offered as an information service, and differentiating it from legacy PSTN offerings.

Communication-based transaction processing services today consist of complex "on-line" information systems capable of adapting to customer financial choices, location, nomadicity, terminal devices, applications, and products. In many cases, the transport component of the customer's product choice may be merely incidental to the primary purposes for effecting the communication – perhaps even being postpaid by a third party. The end-user customer in-effect is using a virtual, personal transaction processing kiosk with an array of associated communication and other product options.

It seems appropriate to apply the Pulver three-pronged test to invoke Federal preemption policy to such transaction processing kiosk offerings and treating them as nationwide information services free from Title II regulation. The primary nature of the service is information processing rather than telecommunications. In the case of VeriSign's kiosk architecture, the infrastructure consists almost entirely of IP-enabled signalling, directory, financial, and transport components tailored for nomadic end-users whose physical location tends to be a transitory event. Some features of the offerings actually enable web-based management of the transaction processing account by the parties involved. The underlying architectures and processes are national if not international in scope – making separation between interstate and intrastate activities essentially impossible. Subjecting on-line transaction processing services to state regulation would impede innovative evolution of the technology.

Preemption is also appropriate in light of state attempts in recent years to re-regulate such information services under rubrics such as "billing aggregation." The services involve national or international transaction processing, and the application of state telecommunication regulatory regimes to the providers of such services merely because a mobile user happened to invoke the services from within the state, is unwarranted.

VeriSign's transaction processing platforms for communications, commerce, and content make it a significant interested party in this proceeding

1. For more than a decade, VeriSign, Inc. (VeriSign) has provided an array of large-scale, ultra-high availability, trusted infrastructures that enable network signalling, security, identity management, directory, commercial transactions, fraud management, and content capabilities for a broad array of network based business and consumer services – whether it be Internet, Web, Internet access, traditional voice telephony, VoIP, multimedia, or Next Generation Networks. VeriSign operates through various divisions that have offices and staff in the U.S. and worldwide.

2. Among its array of infrastructure offerings, VeriSign provides interrelated transaction processing, authentication, and roaming services for thousands of communication service providers and merchants worldwide that allow these providers to outsource all the capabilities necessary to support pre- or post paid offerings or roaming service. These offerings are synergistic with VeriSign's many other PSTN, CMRS, and Internet based third party service bureau offerings. The technology platforms are also highly innovative and constantly evolving to meet Next Generation Network (NGN) needs. The current products consist of SmartPay, iRoam, Replenishment Service, and American Roaming Network.

3. SmartPay® is a real-time billing service that allows customers to pay for network-based services in advance. SmartPay only allows calls or other purchases if there are sufficient funds in the customer's SmartPay account. When the customer depletes the account, SmartPay disconnects the call or terminates the service. SmartPay appeals to customers who want control over spending - especially for children, are on limited budgets, do not want to make a long-term commitment, or do not have easy access to credit. With SmartPay, there are no monthly bills, no lengthy contract commitments, and no credit checks. Customers can use any handset or terminal device and do not have to use a debit card. SmartPay allows both spontaneous and automatic account replenishment. Customers can make a deposit at any SmartPay retail location or charge a credit card whenever they deplete their balance. To guarantee against depleting their balance during

a call, customers can choose balance-driven or time-driven automatic replenishment charged to a credit card or drafted from a bank account.

4. iRoam® is real-time billing for roaming prepaid wireless subscribers. With iRoam, carriers use the agreements and settlement processes that allow their postpaid subscribers to roam between markets. VeriSign integrates the iRoam platform into the carrier's postpaid roaming network to bill prepaid subscribers in real time while they roam.

5. VeriSign Replenishment Service uses the VeriSign Transaction processing Services infrastructure to provide an array of electronic options to pre-paid cellular subscribers. VeriSign Transaction processing Services is a trusted transaction processing infrastructure that has over 100,000 merchants under management and 650 million transactions processed. A myriad of electronic entry points mean that subscribers no longer have to find a specific retail location that is open, travel there, and physically hand over cash for pre-paid minutes.

6. American Roaming Network is a service designed to provide billing support to serve wireless direct-dialed calls using an Integrated Voice Response (IVR) system to process the billing of each call without live operator assistance. Co-located with the carrier's switch, these systems control call completion based upon the results of billing validation. The billing system prompts the caller to select a billing option. The caller may choose to place a collect call or bill the call to a U.S. carrier calling card or credit card. If the billing method is valid, the systems allow the switch to complete the call. Alternatively, centralized call processing is also available.

This proceeding is timely and appropriate in light of rapidly emerging industry developments

7. VeriSign strongly supports the Commission's efforts in this proceeding to comprehensively consider the direction of network-based transaction processing systems today, "gather[ing] information about all types of current and planned calling card services" and appropriately tailor[ing] its policies and rules." The combination of convergent communications and ever more nomadic users, is producing a demand for secure, flexible, service-independent transaction processing systems.

8. In the emerging Next Generation Network (NGN) frameworks now being developed on a global scale, this evolution in transaction processing systems is reflected in the capability set combination of charging, mobility, identification, authorization, and session handling.[1] In NGN architectures now emerging, service-independent transaction processing systems are tightly coupled to identity, permission management, and fraud detection in ways that effectively create highly flexible authentication and transaction processing platforms that allow end users great flexibility in transaction processing options and usage for an array of services and products – both on-line and even off-line. VeriSign is a global leader in providing these platforms to enable communications, commerce, and content from common, trusted transaction processing platforms.

The bifurcation of transaction processing services and communication services for independent regulatory treatment substantially simplifies definition difficulties

9. The Commission poses a series of questions that grow out of AT&T's offering of transaction processing services and the "binding" of those services to any purchased services or products. The first seven of these questions go to marketing and customer use.

> Does offering the caller a menu of options to access information satisfy the definition of an information service, or must the information made available be more integral to the underlying telecommunications service?
>
> How should we distinguish between incidental information and information that is essential to the service?
>
> Is there any evidence that any of these cards are being marketed as providing a service other than making telephone calls?
>
> Is there any evidence that customers purchase these cards for any reason other than making telephone calls?
>
> Is the customer's purpose in buying the card relevant to this inquiry?
>
> How relevant is the frequency with which customers use any such additional features?
>
> We seek comment on the manner in which these cards are marketed, the types of features they offer, and the frequency with which customers use those features. [2]

---

1 *See, e.g., Release 1 Services and Capabilities working document*, ITU-T Doc. FGNGN-OD-00067; ATIS Next Generation Network (NGN) Framework, Part I: NGN Definitions, Requirements, and Architecture, Draft 2.10, November 2004

2 *Id*. at para. 39

As a provider of flexible "programmable" transaction processing services and in light of the profound changes in provisioning platforms and user practices now taking place, VeriSign can underscore that the access card business is proliferating into a generic service offering that necessitates independent treatment from the particular kind of service for which the service is used. In addition, such "unbundling" of transaction processing and products is particularly useful both as a public policy direction and as a mechanism for avoiding hopeless complexities in the future. A notable example is the use of "pure" VoIP where the user may be using the same access card or account to communicate for fixed PSTN service, wireless CMRS service, or IP-enabled communication to a computer-based end-user. The effect of binding cards to specific services would result in end users having to purchase and use different cards and accounts depending on the kind of services the cards were being used for. Clearly the consumer is better served by a single unifying mechanism.

10. The next four Commission questions relate to specific technology platform options for transaction processing services and the related potential effects.

> We also seek comment on the extent to which the use of IP technology to deliver calls placed using prepaid calling cards is a relevant factor in determining its classification under the Act.
>
> Does it matter, as AT&T argues, whether 1+ dialing or 8YY dialing is used to originate the call?
>
> If other providers are offering such services, are they treating them as information services?
>
> If so, how are those services similar or dissimilar to the "IP-in-the-middle" service we classified as a telecommunications service in the AT&T IP Telephony Order? [3]

Here also what seems crucial to a consistent, non-discriminatory and enduring result is to completely "unbundle" the transaction processing services from the means of access or delivery technology or any other factors for which the transaction processing service is used. If IP-enabled services are subsequently purchased, such an offering may or may not be subject to regulatory treatment depending on the results of other Commission proceedings. Indeed, there already exist variants in regulatory treatment resulting not only from the Commission's "IP-in-the-middle" decisions, but also from CALEA

[3] *Id*. at para. 40

managed/mediated treatment. International communications service usage is likely to be even more complicated as a result of policies and treatment at the terminating end, and it seems wholly inappropriate to be crafting transaction processing service policies that are dependent on the products purchased.

11. The next three of the Commission's questions deal with existing prepaid calling card services and types of deployments.

> In addition to services similar to the variants described above, we seek comment on how we might distinguish between telecommunications and information services for other existing or potential prepaid calling card services that incorporate features not specifically addressed in this item. [4]
>
> Are there other existing prepaid calling cards that offer capabilities in addition to the ability to place a phone call? [5]
>
> What capabilities do these other cards offer, and how are they different from the prepaid calling cards offered or proposed by AT&T? [6]

VeriSign® Replenishment Service is the quintessential example today of how the network transaction processing business in being transformed into an authenticated paperless, media and product independent offering that accommodates the different buying behaviors of the diverse groups that make up the rapidly expanding network transaction processing market. Network providers can cater to the specialized needs of subscribers that now range from youth and other people with no or poor credit history, to tourists and business professionals traveling internationally, to people who just want to control their spending or not sign up for a cell phone contract.

12. The VeriSign Replenishment Service platform can be front-ended by a variety of mechanisms, including:

- Mobile-phone keypads: Pre-paid subscribers can top-up their cell phones directly by sending an SMS message to a designated number. These messages can be preformatted for even greater convenience.

---

4 *Id*. at para. 41
5 *Ibid*
6 *Ibid*

- ATM machines: The VeriSign Replenishment Service connects carriers to banks, enabling pre-paid subscribers to use the ATM network to top-up minutes or enable content or commercial purchases.

A current product specification sheet is appended to these comments that describes the rich array of features and flexibility associated with this transaction processing service.

IP-enabled services technology is inextricably entwined with the provisioning of transaction processing services and their classification as an information service

13. The Commission poses two questions dealing with the use of IP-enabled services in conjunction with prepaid calling services that reveal how significantly these services have evolved.

> In what other ways is IP technology being used to provide prepaid calling services?
>
> What other features are relevant to the classification of any existing or potential prepaid calling cards? [7]

VeriSign's transaction processing services are largely based on IP infrastructure platforms and interface with carrier systems or the SS7 Intelligent Network as necessary to enable PSTN or CMRS based resources and provide transaction information. VeriSign's use of IP technology allow convenient innovations such as the web-based interfaces for users to manage their accounts via the Internet, as well as access to wireless terminal content services such as Jamster®.

14. These transaction processing offerings would ordinarily be treated as information services. However, any use of the transaction processing services to purchase regulated telecommunication services typically results in a classification that subjects VeriSign to myriad potential regulatory requirements. VeriSign urges the Commission to unbundled transaction processing services from the associated product purchased – thereby creating a robust and unfettered market for network based transaction processing system offerings.

---

[7] *Ibid*

The Commission's imposition of Federal preemption is not only appropriate from a legal and policy perspective, but also essential to the effective development of the transaction processing service marketplace globally

15. The Commission's most important and beneficial action in this proceeding is posed in the questions and proposal to preempt state regulation of transaction processing service marketplace.

> To the extent the variant services described by AT&T or other existing or potential prepaid calling card services are classified as information services, they presumably would be subject solely to federal jurisdiction. [8]
>
> …on the circumstances, if any, under which we should assert exclusive federal jurisdiction, even if the calls originate and terminate in the same state. [9]
>
> What factors would be relevant in deciding whether the Commission should assert exclusive jurisdiction? [10]
>
> Does the Commission's recent *Vonage Order* have any relevance in this circumstance? [11]
>
> In the past, the Commission has treated prepaid calling cards as jurisdictionally mixed telecommunications services subject to state and federal regulation. As companies introduce "enhanced" prepaid calling cards, questions arise as to whether these new services should be subject to the same regulatory treatment. In this NPRM, the Commission seeks comment on two types of "enhanced" prepaid calling card services offered or planned by AT&T as well as other existing or potential prepaid calling card services incorporating features that are not currently addressed by our rules or this item. Specifically, the Commission seeks comment on the classification of such services as telecommunications services or information services and whether, or under what circumstances, the Commission should exercise exclusive federal jurisdiction over such services. [12]

By any measure or test, prepaid cards – which are one of many species of network transaction processing services today - are information services for purposes of regulatory classification and Federal preemption action seems especially appropriate. A *Pulver Order* or *Vonage Order* preemption analysis seems especially dispositive.[13]

---

8 *Id*. at para. 42

9 *Id*. at para. 41

10 *Ibid*

11 *Ibid*

12 *Id*. at para. 50

13 *See Petition for Declaratory Ruling that pulver.com's Free World Dialup Is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3320-21, para. 21 (2004) *(Pulver Order)* (end-to-end analysis is "unhelpful" where service simply consists of an Internet server, the portable nature of the service makes it difficult to determine customers' locations, and the service provider does not provide any transmission capability)*; Vonage Holdings Corporation Petition for Declaratory Ruling Concerning*

16. The characteristics of the network transaction processing services at issue in this proceeding "preclude any practical identification of, and separation into, interstate and intrastate communications for purposes of effectuating a dual federal/state regulatory scheme, and that permitting [state] regulations would thwart federal law and policy."[14] These services – certainly as offered by VeriSign – are like the DigitalVoice services in the *Vonage Order,* entirely Internet-based information services that have gateways to regulated PSTN and CMRS network management systems. In this respect, the services are the "back-end" network management equivalent of the "front-end" voice services considered in the *Vonage Order*. Indeed, the predominant functional components of the transaction processing services are purely information processing in nature.

17. Because these are innovative Internet-based services, they fall within the ambit of the concerns expressed about state inhibition of nationwide innovation expressed not only in the 1996 Communications Act, but also more recently in the extended moratorium on Internet taxation.[15] The Next Generation Network transaction processing market sector is currently undergoing rapid, global-scale development and evolution – cutting across all manner of communications, commerce, and content network architectures and services.[16] There are few clearer cases for Federal preemption than in this field.

18. Multiple state regulatory regimes also violate the Constitution's Commerce Clause because of the unavoidable effect that regulation on an intrastate component would have on interstate use of this service or use of the service within other states. Such actions

---

an Order of the Minnesota Public Utilities Commission, WC Docket No. 03-211, Memorandum Opinion and Order, FCC 04-267 (rel. Nov. 12, 2004) (*Vonage Order*).

14 *Id* at para. 14.

15 Telecommunications Act of 1996, Pub. Law No. 104-104, 110 Stat. 56 (1996) (1996 Act); Internet Tax Non-Discrimination Act (Public Law 108-435).

16 *See, e.g.*, ITU-T (International Telecommunication Union – Telecom Standards Sector), *NGN Release 1 Scope working document*, FGNGN-OD-00070; *Release 1 Services and Capabilities working document*, FGNGN-OD-00067; *FGNGN Functional Requirements Architecture working document*, FGNGN-OD-00065; Rec. Y.110, *Global Information Infrastructure principles and framework architecture*; Rec. Y.2011, *General principles and general reference model for next generation network;*, Rec. Y.2001, *General overview of NGN, FGNGN-FRA, Functional Requirements and Architecture of the NGN. See also*, ETSI (European Telecommunication Standards Institute) Standards, *Services capabilities, requirements and strategic direction for NGN services*, DTR/TISPAN-01023-NGN; *NGN generic capabilities*, DTR/TISPAN-01024-NGN; ATIS (US Alliance for Telecommunications Industry Solutions), *Next Generation Network (NGN) Framework, Part I: NGN Definitions, Requirements, and Architecture*, Draft 2.10, November 2004.

have been born out in practice. Some state jurisdictions over the past several years sought to impose new regulatory schemes on providers of innovative transaction processing services by creating new regulatory devises such as "billing aggregator" that impose entry limitations and subsequent regulatory requirements.[17] To the extent that state or local business practice concerns exist, existing Federal provisions of both the Commission and the Federal Trade Commission apply.[18]

19. Finally, in applying the Vonage Order preemption test on impossibility, we note that even more so than for VoIP, transaction processing – which also normally involves fraud management checks and authentication verifications - inherently encompasses many interrelated jurisdictions.[19] It is simply not feasible to separate out all the myriad jurisdictional components for any kind of separations treatment. Indeed, on-line transaction processing systems are the ultimate example for the crafting of the Commerce Clause.

---

[17] *See, e.g.*, 38.5.4201 Registration Requirements And Obligations of Service Providers, Billing Aggregators, and Billing Agents, Administrative Rules of Montana; Registration of billing aggregators, 30 V.S.A. § 231a (Vermont).

[18] *See, e.g.*, CC Docket No. 96-146 (pay-per-call and other information services); CC Docket No. 98-170 (truth-in-billing).

[19] *See Vonage Order, supra*, at para. 23 et seq.

VeriSign®

DATA SHEET

VeriSign® Replenishment Service

KEY BENEFITS

Flexible, scalable, and future-proof platform
Enables carriers to pursue market opportunities as they arise, whether they involve new top-up mechanisms, customer classes, distribution channels, geographic regions, or value-added services.

Convenient access for subscribers
Round-the-clock top-up payment service provides a wider range of convenient electronic entry points.

Immediate ROI
The replacement of inefficient paper-based payment systems with a fully electronic solution can improve carrier margins by approximately 30 percent in the first year.

Branded service backed by world-class security
VeriSign's expertise in both the telecommunications and payments arenas provide immediate benefit to carriers.

Mobile phones now outnumber their traditional landline counterparts, and demand for pre-paid service continues to drive growth in what would otherwise be an increasingly stagnant cellular voice market. Pre-paid services enable wireless carriers to tap new customer groups that generate up-front cash and no bad debt, and now account for more than half a billion subscribers worldwide. This expansion, however, is being throttled by low-tech payment systems that erode margins and don't scale. VeriSign® Replenishment Service, as part of the VeriSign Payment Services offerings, is looking to fill this gap by replacing paper-based vouchers with a comprehensive and fully electronic solution that is secure, cost-effective, easy to implement, and convenient to use.

+ The Power of Paperless Payments

VeriSign Replenishment Service uses the VeriSign Payment Services infrastructure to provide electronic top-up options to pre-paid cellular subscribers. VeriSign Payment Services is a trusted payments infrastructure that has over 100,000 merchants under management and 650 million transactions processed. A myriad of electronic entry points mean that subscribers no longer have to find a specific retail location that is open, travel there, and physically hand over cash for pre-paid minutes. Similarly, retailers do not have to stock up on paper vouchers, in what they hope is the right mix of denominations, in order to avoid losing sales—while also running the risk of possible product theft of these valuable scratch cards.

VeriSign Replenishment Service is a highly flexible payment platform that is looking to accommodate the different buying behaviors of the diverse groups that make up this rapidly expanding pre-paid market. Carriers can cater to the specialized needs of subscribers that now range from youth and other people with no or poor credit history, to tourists and business professionals traveling internationally, to people who just want to control their spending or not sign up for a cell phone contract.

The platform can be front-ended by a variety of top-up mechanisms. Some examples are:

- Mobile-phone keypads: Pre-paid subscribers can top-up their cell phones directly by sending an SMS message to a designated number. These messages can be preformatted for even greater convenience.
- ATM machines: The VeriSign Replenishment Service connects carriers to banks, enabling pre-paid subscribers to use the ATM network to top-up their minutes.

- Point-of-Sale (POS) terminals: Retailers who receive cash from subscribers enter the mobile phone number and top-up amount into their existing POS terminals running the VeriSign Replenishment Service application. The information is then passed from the merchant's bank to the VeriSign Replenishment Service.
- Automatic bank deductions: It is also possible to establish standing recharge requests based on a time basis (e.g., per month) or based on a reaching a floor amount of phone credit (e.g., when there is only "x" dollars left on my phone, request a top-up for "y" dollars).
- IVR: Pre-paid subscribers dial a toll-free number and request a top-up. The IVR application contacts the VeriSign Replenishment Service, which notifies the carrier of the phone number and top-up amount.
- Web interface: A pre-paid subscriber can top-up by interacting with an application on a Web site. The application passes the information to VeriSign Payment Services, which communicates it to the carrier and initiates a payment from the subscriber.

With each of these top-up options, the VeriSign Replenishment Service can operate as a self-contained solution that includes all requisite software, hardware, and networking infrastructure. Nothing needs to be added to the subscriber handsets.

+ Increase Pre-Paid Profits

The electronic payment methods enabled by the VeriSign Replenishment Service are far more efficient than traditional paper-based transactions involving manual intervention. As such, they can increase the profitability of pre-paid carrier networks substantially. According to a study by Mobile Commerce World, an electronic top-up payment system can improve margins by more than 30 percent in the first year. Such a system also provides a comprehensive audit trail. This can serve as evidence to support each transaction, and help to mitigate potential exposure to fraudulent activities.

VeriSign Replenishment Service is an industrial-strength solution that will streamline and automate the pre-paid top-up process for VeriSign's carrier partners. The result is lower costs, increased revenue, and improved customer satisfaction.

+ Learn More

To learn more about how the VeriSign Replenishment Service can help you automate pre-paid top-ups and expand and diversify your subscriber base, call a VeriSign Sales Representative at (888) 847-2747 or (650) 426-4690, (select option 1), send an email message to wirelesspayments@verisign.com, or visit our Web site at http://www.verisign.com/products/payments/html.

Visit us at www.VeriSign.com for more information.

This document is for marketing purposes only. Services described herein may not be available in all locations and may not include all features described. The VeriSign Replenishment Service will be available in Spring 2004.